

REMARKS/ARGUMENTS

This Amendment is submitted in response to the first Official Action of April 2, 2004. Reconsideration and allowance of claims 1, 2, 6, 7, 14 and 15 remaining in the application are respectfully requested.

The Office Action rejected Claims 1-3, 5-7 and 13-16 as being anticipated under 35 U.S.C. §102(b) by U.S. Patent 5,935,081 to Kadhiresan (hereinafter the '081 patent). By the present amendment, independent claims 1 and 14 have been amended in a way that patentably defines over the teachings of the '081 patent. In particular, claim 1, as now amended, is limited to an implantable medical device that comprises a microprocessor-based controller, a memory controlled by the microprocessor-based controller, a means for sensing variations in transthoracic impedance due to respiratory related activity and a means responsive to detection of a predetermined respiratory pattern for storing data pertaining to the sensed respiratory-related activity in the memory. A careful reading of the '081 patent reveals that there is no teaching in it of a means for sensing variations in transthoracic impedance due to respiratory related activity. Instead, the '081 patent utilizes an accelerometer 34 capable of detecting vibrations in the chest cavity due to chest wall movement resulting from respiration as well as heart sounds. The complex waveform from the accelerometer is then filtered to isolate the respiratory component. Transthoracic impedance is not a measured parameter in the '081 patent. As such, independent claims 1 and 14 can no longer be said to be anticipated.

It is also submitted that independent claims 1 and 14 are non-obvious over the combination of the '081 patent and U.S. Patent 5,876,353 to Riff (the '353 patent).

As already explained, the '081 patent teaches the use of an accelerometer and bandpass filtering to isolate respiratory artifacts from other sources of vibration picked up in the chest cavity by the accelerometer. The '353 patent describes a device for obtaining transthoracic impedance measurements, but missing from the combination of the '081 patent and the '353 patent is a means that is responsive to the detection of a predetermined respiratory pattern for storing data pertaining to sensed respiratory-related

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activity in the memory of a microprocessor-based controller. Thus, one skilled in the art having the two references in hand would not be led to triggering data storage based on detected respiratory patterns, such as Cheyne-Stokes respiration, apnea, etc.

For the reasons set forth above, independent claims 1 and 14 are neither anticipated nor obvious in view of the art of record. Thus, claims 1 and 14 should be allowed. With the allowance of those independent claims, dependent claims 2, 6, 7 and 15 should now also be allowed. In that all of the claims remaining in the application have been shown to be in condition for allowance, a Notice to that effect is respectfully solicited.

Respectfully submitted,

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